AMAZON MALARIA INITIATIVE



QUARTERLY ACTIVITY REPORT

Reporting Period: January 1-March 31, 2014

Contract No. AID-527-C-13-00004





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About Links Media

Links Media, LLC is a management consulting company based in the Washington D.C. metropolitan area, specializing in information technology and marketing communications. We provide advanced management consultation services to governments and private sector clients in the areas of health, environment, science and technology, biotechnology, governance, human rights, economic prosperity, conflict resolution, education, public engagement, risk and crisis management, and social entrepreneurship.

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Table of Contents

Abbreviations and Acronyms	iii
Background	1
Activities	
Future Activities	10
Challenges and Solutions	13
Financials	13
Environmental Compliance	13
Annex 1: Quarterly AMI News Bulletin	14
Annex 2: Social Media Engagement with Increase in Numbers of Followers	18
Annex 3: Updated AMI Web Site with Mobile-Compatible Design	22
Annex 4: News Release: AMI/RAVREDA Meeting in Managua, Nicaragua	24
Annex 5: Email alert for promotion of AMI and its materials	26

Abbreviations and Acronyms

AMI Amazon Malaria Initiative

CDC United States Centers for Disease Control and Prevention

LAC Latin America and Caribbean Region

MOH Ministry of Health

MSH/SIAPS Management Sciences for Health/Systems for Improved Access to

Pharmaceuticals and Services Program

NMCP National Malaria Control Program
PAHO Pan American Health Organization

RAVREDA Amazon Network for the Surveillance of Antimalarial Drug Resistance

TA Technical Assistance
US United States of America

USAID United States Agency for International Development

Background

The United States Agency for International Development (USAID) launched the Amazon Malaria Initiative (AMI) in 2001 to improve the prevention and control of malaria in partner nations of the Amazon basin. The initiative's mission is to (i) ensure that national malaria control programs in the Amazon basin and selected Central American countries substantially incorporate best practices and (ii) promote evidence-based policy changes in the partner countries. From inception, AMI has maintained a comprehensive view of malaria prevention and control. Its initial focus was to build the evidence base to support the introduction of artemisinin-based combination therapy (ACT) for *P. falciparum* malaria in all Amazon basin countries, and to improve access to and quality of malaria diagnosis. As progress was made in introducing ACT, the areas of epidemiological surveillance, vector control and systems strengthening received further attention.

USAID established AMI as a collaborative partnership among organizations (the AMI technical partners) that provide technical and scientific expertise and collaborate with the nations' ministries of health (MOHs) and national malaria control programs grouped in the Amazon Network for the Surveillance of Resistance to Antimalarial Drugs (RAVREDA) to proactively address malaria prevention and control in a sustainable manner. The partner countries also collaborate with one another and maintain an ongoing exchange of information and expertise through South—South collaboration promoted and supported by AMI). Countries currently supported by AMI include Belize, Brazil, Colombia, Ecuador, Guatemala, Guyana, Honduras, Nicaragua, Panama, Peru, and Suriname.

The initiative's regional approach benefits partner countries through (i) training and technical assistance (TA), (ii) the development of standardized guidelines and protocols, (iii) the comparability of research and monitoring results within and across countries, and (iv) coordinated approaches to addressing shared problems.

This report describes Links Media's activities for this project for the period of January 1 through March 31, 2014. Also included is a summary of achievements and results, as well as suggested future activities, challenges, and solutions.

Activities

During the period from January 1 through March 31, 2014, the Links Media team advanced its advocacy, knowledge dissemination, and communication technical assistance project to strengthen communication strategies for malaria control and prevention in participating Amazon basin and Central American countries. Links Media's activities are designed to position the Amazon Malaria Initiative (AMI) as a credible source of information regarding malaria prevention and control in the Amazon basin and Central America by increasing AMI's name recognition through a broadened and enhanced web presence, augmenting and strengthening its constituent base through increased digital outreach, and providing a robust central repository of updated materials, manuscripts, data, reports and other important documents and graphics via its website. Strategic fact-based advocacy, knowledge dissemination, and technical assistance activities carried out at the international, regional, and national levels also aim to advance the initiative's sustainability by promoting a strengthened base of support, adherence to evidence-based practices, and the institutionalization of its regional collaborative approach through legislative and fiscal adoption.

Highlights from this quarter included submission of the draft Advocacy Strategy for AMI, consultations with 6 out of 11 countries to orient the development of specialized communication strategies for malaria control, completion of AMI website adjustments that resulted in the AMI website's full mobile compatibility and increased traffic, the adaptation and English translation of a technical document for adequate management of antimalarial stocks in tropical settings that was developed for use in Guyana and Suriname, and the achievement of a 27% increase in Facebook connections. From January to February 2014, Links Media distributed a quarterly news bulletin sharing information about AMI technical partner and country activities, communicated about upcoming meetings and events, and facilitated the dissemination of news about a workshop, research results, and technical documents via the AMI website and social media sites. In addition, Links Media supported USAID/Nicaragua's outreach to national news outlets about AMI following the annual AMI/RAVREDA partners' meeting, which was held in Managua from March 11-13, 2014.

Links Media participated in the 2014 AMI external evaluation by completing a questionnaire at the AMI/RAVREDA partners' meeting, holding a Skype interview with Dr. Daniel Vargas in late March, and providing supporting documents to demonstrate Links Media's contributions to AMI's information-sharing, communication, and dissemination efforts over many years. When partners were first informed of the external evaluation in January by USAID/Peru, it was not specified that the evaluation would cover the entire program period dating back to AMI's inception in 2001; however, as a result of long-term collaboration with AMI, Links Media has a wealth of information from prior years. The Links Media team was surprised that as of late March, the external evaluators appeared to be unfamiliar with the current scope of work to be undertaken by Links Media as AMI's communication partner. Numerous questions posed during the Skype interview were omitted from the interview script, particularly regarding the usaidami.org website and the AMI coordination process. In answering interview questions, the Links Media team attempted to fill all information gaps: Links Media explained the

communication component of the initiative, summarized all progress made during the six months since rejoining the initiative, and repeated information that had previously appeared in multi-year reports, the Q1 FY14 report, and the first semi-annual portfolio review of 2014. External evaluators requested that Links Media send supporting documentation via email following the interview, and Links Media complied with their request promptly.

Following is a summary of other key activities carried out and progress towards the achievement of SARI objectives during this period:

Task 1. Design an AMI dissemination/communication strategy, and prepare annual dissemination/communication work plans.

1.1. Refined the AMI annual communication/dissemination strategy for FY 2014, entitled Advocacy Strategy for the Amazon Malaria Initiative, which entailed convening review and editing sessions and validating proposed approaches with partners at the 2014 AMI/RAVREDA annual meeting. Adjusted approaches and activities contained in strategy according to partner feedback, feasibility, and available budget.

Task 2. Communication strategies designed for each of six Amazon countries (Brazil, Colombia, Ecuador, Guyana, Suriname, Peru), and one communication strategy for the bloc of Central American countries (Belize, Guatemala, Honduras, Nicaragua, and Panama) (i.e. Technical cooperation to support the design of communication strategies).

- 2.1. Implemented tool for assessment of communication and advocacy needs with National Malaria Control Program directors and/or staff of Belize, Brazil, Colombia, Ecuador, Guyana, and Suriname. Followed up with staff to clarify responses for the development of communication strategy outlines and desire for potential communication training or technical assistance activities. Assessment process provided the basis for understanding current malaria control priorities and direction in order to move forward with communication strategy development.
- 2.2 Held meetings with NMCP directors and other relevant staff on the sidelines of the March 2014 AMI/RAVREDA meeting in Nicaragua to discuss the design and implementation of country and regional communication strategies.
- 2.2 Customized outlines for country communication strategies of Brazil, Colombia, Ecuador, and Guyana; created an outline for the regional strategy for Central American countries; advocated for an overall strategy to be developed by PAHO and participating Guyana Shield countries to define the regional response to the emergence of artemisinin resistance prior to development of communication strategy.

Task 3. Develop and produce messages, dissemination and communication materials and instruments.

3.1. Relaunched the <u>usaidami.org</u> website with updated styles, content, and a new format for full compatibility with mobile devices. For example, transferred outdated Flash

components of the usaidami.org website, such as the gallery of images, to a responsive (i.e. mobile-friendly) format. Used Google Analytics to monitor website's effectiveness and reach in countries of performance. Website analytics below show Q1 baseline and Q2 performance. Note that as a project website, the audiences of interest are AMI technical partners and other stakeholders in the countries of performance.

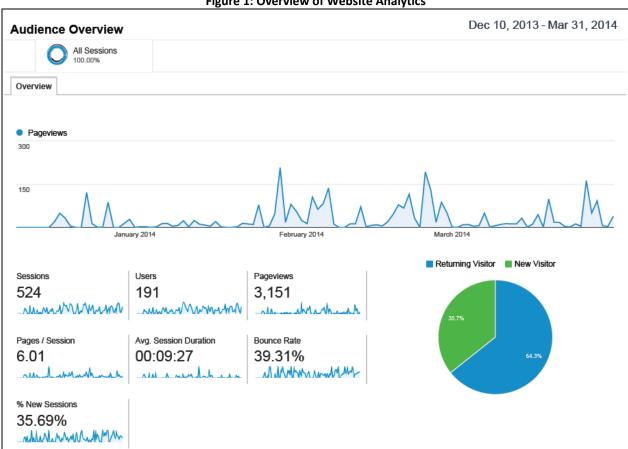


Figure 1: Overview of Website Analytics

Compared to the December 2013 baseline, metrics from this quarter show a significant increase in page views for the project website usaidami.org. The AMI website had 3,151 unique page views during 524 web sessions; 35.69% of all visits were by new users. Most of the 191 unique users were return visitors during the quarter. Website traffic increased steadily with the weekly addition of new content. Peaks in the Figure 1 line graph coincide with Links Media's distribution of the first quarterly AMI news bulletin via email from January 30 to February 5, which linked to the AMI website. Activity also increased significantly during and after the AMI/RAVREDA partners' meeting from March 11-13, and following an email blast on March 27. The fact that the average user accessed six pages per session is positive, because it indicates that most users explored nearly all of the seven sections of the website (Home, About AMI, AMI Countries, Technical Areas, News, Resources, and Partners). The relatively low bounce rate of 39%, or the percentage of sessions in which individuals visited one page without interacting on the website further, is more evidence of the website's value. The average user session lasted

over nine minutes, which shows that visitors found the AMI website useful and took the time to read content on multiple pages.

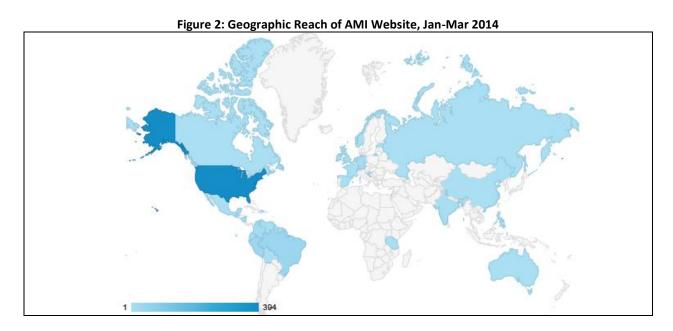


Figure 3: Top Countries that Accessed usaidami.org

Country / Territory		Sessions % Sessions	
1.	United States	394 75.19	9%
2.	Brazil	33 6.30%	
3.	Peru	28 5.34%	
4.	Colombia	12 2.29%	
5.	Nicaragua	11 2.10%	
6.	Germany	5 0.95%	
7.	Guatemala	4 0.76%	
8.	Suriname	4 0.76%	
9.	India	3 0.57%	
10.	Canada	2 0.38%	

Website analytics show that the top users of <u>usaidami.org</u> are accessing information from the United States and AMI countries of performance. Per Figures 2 and 3 above, six of the top ten countries with unique web sessions are AMI countries (Brazil, Peru, Colombia, Nicaragua, Guatemala, and Suriname). That United States leads the number of web sessions is unsurprising given that the page is hosted in the United States, where several of the technical partners and stakeholders are based. Links Media should target audiences in the other AMI countries (Belize, Ecuador, Guyana, Honduras, and Panama) in the next quarter.

Figure 4: Patterns of AMI Website Use via Mobile Devices

	Acquisition			Behavior		
Operating System ⑦	Sessions .	% New Sessions	New Users	Bounce Rate	Pages / Session	Avg. Session Duration ?
	53 % of Total: 7.26% (730)	75.47% Site Avg: 44.25% (70.57%)	40 % of Total: 12.38% (323)	73.58% Site Avg: 45.07% (63.27%)	2.00 Site Avg: 5.01 (-60.10%)	00:01:52 Site Avg: 00:07:35 (-75.29%)
1. iOS	30 (56.60%)	66.67%	20 (50.00%)	76.67%	1.43	00:01:12
2. Android	19 (35.85%)	84.21%	16 (40.00%)	63.16%	3.11	00:03:19
3. BlackBerry	3 (5.66%)	100.00%	3 (7.50%)	100.00%	1.00	00:00:00
4. (not set)	1 (1.89%)	100.00%	1 (2.50%)	100.00%	1.00	00:00:00

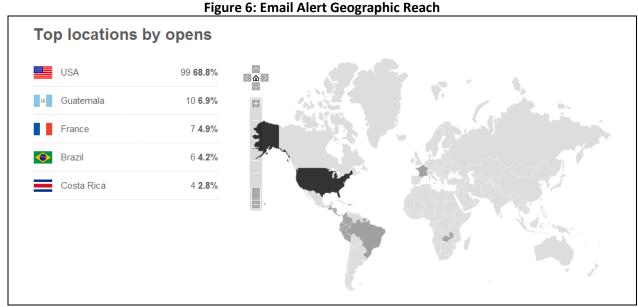
Over 75% of new sessions on the website were initiated from mobile devices. Data displayed in Figure 4 reveals that a majority of mobile users accessed <u>usaidami.org</u> from Apple devices (iOS). Access by mobile users is expected to increase in future quarters as a result of modifications made this quarter to enhance mobile compatibility.

- 3.2 Conducted a review of website content and identified a) incorrect translations; b) missing documents; and c) outdated or pending information in need of updating. For example, the "Country Activity" section on the AMI homepage did not include the most recent information about national progress in terms of malaria control, and lacked information about Central American countries. Links Media created country icons for the five participating AMI countries in Central America, and coordinated with PAHO to obtain the current PDFs for AMI country profiles. Links Media generated web-friendly overviews for each country and updated the country profile documents for download under "Country Activity." Short synopses of technical publications and meetings were also included under "AMI News."
- 3.3 Distributed Issue 1, Volume 1 of quarterly AMI news bulletin (see Annex 1) to AMI stakeholders via email and social media, detailing activities of international technical partners and participating AMI countries from October to December 2013. Updates were sought from all partners and input was collected from PAHO, MSH, USAID/Peru, and USP. Activities in Brazil and Colombia were highlighted from a country perspective.
- 3.4. Attended the XIII AMI/RAVREDA Annual Evaluation Meeting and XXV AMI/RAVREDA Steering Committee Meeting held in Managua, Nicaragua from March 11-13, 2014. Presented Deliverable 1.2, communication/dissemination strategy as "Strategic Advocacy for the Amazon Malaria Initiative: A Call to Action" and validated main points with AMI partners and stakeholders in order to finalize the document. Presented Links Media's work plan at steering committee meeting and provided input during discussion session. Introduced Links Media's role as AMI's international communication partner with responsibility for communication strategy development and limited technical assistance

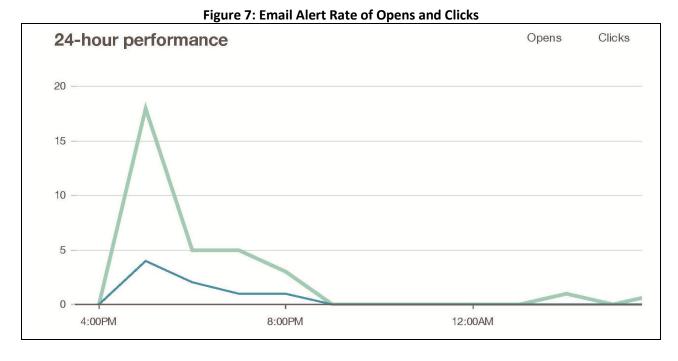
- for implementation of communication strategies. Issued a bilingual news release in English and Spanish following the event (see Annex 4).
- 3.5. Disseminated information about a January 2014 World Health Organization update regarding resistance to artemisinin-based antimalarial medicines via website and social media. Used the same channels to disseminate new publications released by MSH/SIAPS, CDC, and new editions of strategic orientation documents released by PAHO.
- 3.6. Established a Flickr profile for the Amazon Malaria Initiative and uploaded high-resolution images with AMI photo credit. Added Flickr icon to series of social media buttons in upper right corner of <u>usaidami.org</u>.
- 3.7. Expanded AMI's reach with messages about malaria prevention and control among key target audiences including the United States Government, donors, cooperation agencies, research institutions, and the general public via regular engagement on Facebook, Twitter, LinkedIn, and Flickr (see Annex 2). Through proactive outreach and engagement, Links Media increased the Amazon Malaria Initiative's number of Facebook friends from 339 to 431 by quarter's end, for a 27% increase in connections. On Amazon Malaria Initiative's Facebook group, which is an interactive platform where scientific articles, news, photographs, debates, and other resources are shared organically among members, 357 members had joined as of March 31. Twitter followers of @AmazonMalaria increased from 508 to 517.
- 3.8. Revised text for the AMI brochure, according to evolution of project's priorities and strategic direction. Obtained COTR's approval of updated text and proceeded to develop new graphical layout.
- 3.9. Supplied information for the semi-annual portfolio update of AMI products.
- 3.10 Issued an electronic news alert in English, Spanish, and Portuguese to promote AMI and its materials. Distributed the alert via MailChimp on March 27, 2014 to over 180 email subscribers, including AMI technical partners, NMCP staff, and individuals at relevant external organizations. A snapshot of the alert can be found in Annex 5. Metrics on the effectiveness of the electronic news alert are shown below.

Figure 5: Email Alert Statistics

Reports **AMI Latest News - Novedades - Novidades** 180 Recipients List Julie de Carvalho Delivered Thu, Mar 27, 2014 04:33 pm Subject AMI Latest News - Noticias -Novidades 36.8% 10.4% Open rate Click rate List avg 31.2% List avg 10.7% Industry avg 21.7% Industry avg 3.0% 60 17 17 0 Opened Clicked Bounced Unsubscribed Successful deliveries 163 90.6% Clicks per unique opens 28.3% Total opens Total clicks 162 22 Last opened 4/17/14 5:04PM Last clicked 3/31/14 8:47AM Forwarded Abuse reports 0 https://us3.admin.mailchimp.com/reports/summary?id=505505 1/3



Impact of the March 2014 AMI email alert can be evaluated according to the geographic breakdown of subscribers who opened the message, as shown above in Figure 6. In addition to the United States and AMI countries of Guatemala and Brazil, top countries included France and Costa Rica. This can be explained because both countries sent representatives to the AMI/RAVREDA partners' meeting in Nicaragua earlier in the month. Links Media should seek to expand the geographic reach of future email alerts by building its email subscriber list for AMI.



Task 4. TA in the design and implementation of dissemination/communication strategies and/or activities provided to USAID and other AMI partners, including annual follow-up of

and limited consultancy in the implementation of countries' communication strategies developed through Task 2.

- 4.1. Delivered presentation to international technical partners and representatives of NMCPs at AMI/RAVREDA meeting in Nicaragua to ensure an understanding of Links Media's scope of work and discuss partners' anticipated training and technical assistance needs.
- 4.2. Discussed possibility of assisting AMI country partners with the development of scopes of work (SOWs) for local communication activities related to malaria, providing advice on the conduct of attitudinal research regarding target audiences' resistance to use bed nets, especially among itinerant gold miners, and carrying out communication activities related to cross-border support of itinerant gold miners in terms of malaria prevention, diagnosis with use of rapid diagnostic tests (RDTs), and completion of treatment with artemisinin-based combination therapies (ACTs).

Task 5. Provide editorial support to other AMI partners for key dissemination/communication materials.

5.1 Links Media adapted the MSH/SIAPS document entitled, "Tips for Lowering Pharmacy Temperatures to Maintain Good Medicine Quality," a practical guide for health facilities located in tropical areas, by providing translation from Spanish to English and graphics support. Illustrated document, which was originally designed for the technical staff of community-level health facilities in the region of Loreto, Peru, was adapted for use in Guyana and Suriname. MSH/SIAPS has contemplated further dissemination of this document to other English-speaking audiences outside the LAC region. At quarter's end, document was pending final approval.

Future Activities

The following are activities proposed for the period April 1 through June 30, 2014.

Task 1. Design an AMI dissemination/communication strategy, and prepare annual dissemination/communication work plans.

- Deliver the final AMI advocacy strategy to partners via email and Google Drive, accompanied by a USAID/Peru letter of endorsement.
- Translate the final AMI advocacy strategy into Spanish and Portuguese.
- Distribute the final AMI advocacy strategy to international technical partners and country partners, and make it available for download via <u>usaidami.org</u>.

Task 2. Communication strategies designed for each of six Amazon countries (Brazil, Colombia, Ecuador, Guyana, Suriname, Peru), and one communication strategy for the bloc of Central American countries (Belize, Guatemala, Honduras, Nicaragua, and Panama) (i.e. Technical cooperation to support the design of communication strategies).

- Assess the current malaria control situation and the communication and advocacy needs
 of the five remaining AMI countries that have not yet been assessed by administering a
 telephone questionnaire to NMCP directors and relevant staff. Other individuals, such as
 PAHO focal points in the field, may be invited to participate in these initial
 conversations.
- Deliver customized communication strategy outlines to USAID/Peru and country NMCPs/PAHO focal points for all Amazon basin countries, the regional communication strategy for Central America, and the communication strategy to prevent or contain the possible emergence of artemisinin resistance in the Guyana Shield region.
- If applicable, identify key communication staff within NMCPs or ministries of health, and/or other stakeholders whose support for communication strategies may be essential to ensuring buy-in and eventual implementation. Follow up with NMCP contacts via virtual means such as telephone, email, and Skype to further engage with them regarding changes to strategy outlines.
- Participate in virtual or in-person consultations with NMCP staff and PAHO focal points
 of Brazil, Guyana, Suriname, and French Guyana to orient the development of a
 communication strategy to prevent or contain the emergence of artemisinin resistance
 in the Guyana Shield. Links Media will analyze proposed actions in response to the
 knowledge, attitudes and practices (KAPs) study that was conducted among small-scale
 gold miners in Suriname and propose a strategic framework for addressing the issues
 raised.
- Complete drafts of the eight (8) country and regional communication strategies and submit them for review by key in-country stakeholders.

Task 3. Develop and produce messages, dissemination and communication materials and instruments.

- Finalize the new AMI brochure and upload it to the Resources section of <u>usaidami.org</u>.
- Propagate messages about AMI in accordance with the key messages defined in the overall communication/dissemination strategy. Messages to be disseminated via media outreach, social media engagement, and AMI publications will be oriented towards the achievement of strategic communication objectives.
 - Issue at least two (2) pitches to the news media with the perspective of the countries of the Americas relating to the topics of World Health Day on April 7, 2014, which will focus on vector-borne diseases, and World Malaria Day on April 25, 2014.
 - Design infographics for April awareness events: World Health Day 2014 focusing on vector-borne diseases, and World Malaria Day 2014.
- Implement weekly website updates. In addition:
 - Additional partner documents will be uploaded to Malaria News & Events, AMI
 News, and Resources sections of the website for dissemination purposes.

- An annual calendar of events will be added to the website, to include both AMI meetings and external conferences of interest to technical and country partners.
- o A search function will be added to the Resources section of the website.
- A "Subscribe to Email Alerts" button will be added to the AMI website in English and Spanish, with new subscriber email addresses sent to a Links Media email account. This will help to expand the reach of email communications by increasing the size of the AMI subscriber list.
- Deliver outline of AMI's annual achievement report for FY 2014, and validate it with COTR. Continue to encourage international partners to contribute to the Partners' Shared Documents folder on Google Drive. In addition to meetings and direct requests for information via email, Links Media will collect relevant public information about AMI activities in the international media and on the partners' websites.
- Disseminate technical documents through the AMI Website, electronic alerts, AMI enewsletter, and the media.
- Develop three (3) updated AMI fact sheets on the topics of:
 - 1. Overview of Initiative
 - 2. Antimalarial Medicine Resistance
 - 3. Antimalarial Medicine Quality

Task 4. TA in the design and implementation of dissemination/communication strategies and/or activities provided to USAID and other AMI partners, including annual follow-up of and limited consultancy in the implementation of countries' communication strategies developed through Task 2.

- Plan and coordinate with international partners on an ongoing basis, as well as complete a needs assessment with NMCPs via telephone in conjunction with the rapid assessment described under "Future Activities" for Task 2. Secure COTR's written approval prior to initiation of ad hoc support activities.
- Develop and deliver a virtual technical assistance activity.
- Develop three (3) communication tools. First product is expected to be a learner verification tool for the adapted technical document "Tips for Lowering Pharmacy Temperatures to Maintain Good Medicine Quality." The tool will enable MSH/SIAPS to pre-test the material and evaluate its effectiveness prior to deployment in Guyana and Suriname.

Task 5. Provide editorial support to other AMI partners for key dissemination/communication materials.

- Use Links Media's system for tracking requests and its editorial services support process to structure partner requests for editorial and graphics services.
- Provide manuscript support to AMI partners. Activities currently being considered for Links Media's editorial and graphics support include:

 Review and edit Portuguese language text for MSH's "Deployment of the local supervision methodology for malaria diagnosis and treatment facilities as a reinforcement of Brazil's control strategy" (in Portuguese).

Challenges and Solutions

Links Media has experienced some difficulty in obtaining the quarterly reports that AMI partners submit to USAID, which are to serve as the basis for quarterly AMI activity bulletins and the AMI annual report. To date, only one out of four partners has shared its Q1 report in a timely fashion. Links Media will request the COTR's support to encourage improved and timely information sharing.

Financials

Report on accrued expenditure will be submitted separately.

Environmental Compliance

All activities under the contract fall within those covered by the categorical exclusion as per ETD LAC-IEE-11-60.

Annex 1: Quarterly AMI News Bulletin



International Partner Highlights

The Pan American Health Organization (PAHO) organized a coordination meeting entitled "Addressing the suspected emergence of resistance to artemisinin in the Americas: A Coordination Meeting on the Implementation of Recommendations in the Guiana Shield Regarding Reduced Sensitivity to Artemisinin" in Cayenne, French Guiana, from October 22-23, 2013. Representatives from Brazil, French Guiana, Guyana, and Suriname, the World Health Organization, PAHO, the United States Agency for International Development, the Roll Back Malaria Partnership, the Global Fund to Fight AIDS, Tuberculosis and Malaria, and the Bill & Melinda Gates Foundation participated. This activity followed three previous meetings, and is part of the regional response to the results of efficacy studies carried out in Guyana and Suriname suggesting reduced P. falciparum parasite clearance rates with artemisinin. The recommendations from this meeting will be presented during the AMI an-

nual meeting scheduled for March 2014.

PAHO distributed the regional bulletin for antimalarial stocks corresponding to the third quarter of 2013, with assistance from MSH/SIAPS. Including Central American countries. eight countries provided data for the bulletin, and supported the completion of the second round of the **External Quality** Assurance Program (EQAP) for malaria

Laboratories in the Americas.



2014 Events and Meetings

February

- 80th American Mosquito Control Association (AMCA) Annual Meeting. February 2-6, 2014. Seattle, WA, USA
- Keystone Symposia on Molecular and Cell Biology: The Science of Malaria Eradication. February 2-7, 2014.
- Workshop to present KAP study on antimalarial access and use in gold mining areas, and to design a strategy to confront issues that have been identified. Co-hosted by MSH. February 26, 2014. Suriname

March

- AMI/RAVREDA Annual Evaluation and Steering Committee Meeting. March 10-14, 2014. Nicaragua
- International Day for the Elimination of Racial Discrimination. March 21, 2014.

April

- World Health Day 2014. Vector-Borne Diseases. April 7, 2014.
- Global Health & Innovation Conference (GHIC 2014). April 12-13, 2014. New Haven, CT, USA
- World Malaria Day. April 25, 2014.

ISNTD d3 (Drug Discovery & Development). May 15, 2014. The International Society for Neglected Tropical Diseases (ISNTD). London, United Kingdom

Science of Eradication: Malaria. Malaria leadership development course. June 1-10, 2014. Basel, Switzerland

International Day of the World's Indigenous Peoples. August 9, 2014.

AMI/RAVREDA Steering Committee Meeting. September 2014. Washington, DC, USA

November

- **American Society of Tropical Medicine and** Hygiene 63rd Annual Meeting. November 2-6, 2014. New Orleans, LA, USA
- Malaria Day in the Americas. November 6, 2014.
- American Public Health Association (APHA) 2014 142nd Annual Meeting. November 15-19, 2014. New Orleans, LA, USA
- Entomology 2014: 62nd Annual Meeting of the Entomology Society of America. November 16-19, 2014. Portland, OR, USA

- International Day of People with Disabilities. December 3, 2014.
- Release of WHO's World Malaria Report: 2014
- International Migrants Day. December 18, 2014.

2

International Partner Highlights (continued)

Malaria Day in the Americas was celebrated on November 6, 2013 at **PAHO** headquarters in Washington DC, with a well-attended forum. On the same day, the Colombia Malaria Project was honored as Malaria Champion of the Americas 2013, while special recognition was given to the malaria program of the Dominican Republic for its cross-border coordination with Haiti, and to the State Health Department of Acre, Brazil for its sustained excellence in malaria control.

In late 2013, **Links Media** rejoined the Initiative as AMI's communication partner and has since re-launched the <u>usaidami.org</u> website, re-engaged with AMI's online communities via Facebook, LinkedIn, and Twitter, created a new Flickr profile to share photographs, established a cloud presence on Google Drive for partner file sharing, and advanced communications planning. As part of strategic planning, Links Media will circulate an advocacy strategy for AMI, and design communication strategies for each participating Amazon basin country, the Central America sub-region, and AMI's response to possible emergence of reduced sensitivity to artemisinin. During 2014-2016, Links Media will also develop and disseminate press and educational materials in English, Spanish, and Portuguese, conduct virtual communication trainings, compile and develop AMI's annual achievement report, and provide selective editorial and graphic design support to partners.

During October-December 2013, Management Sciences for Health (MSH) finalized its Spanish-language publication, "Practical Guidelines for the Reduction of Temperature in Pharmacies Located in Tropical Areas." In Loreto, Peru, MSH trained technicians in charge of regional and local medicines warehouses on the implementation of a Standard Operating Procedure (SOP) for the distribution of malaria medicines and commodities, and on the information system used to manage supplies and supervise health facilities. After using the adequacy approach to assess Brazil's implementation of insecticide-treated bed nets, rapid diagnostic tests, indoor residual spraying, and artemisinin-based combination therapy, MSH assisted malaria control programs from nine Brazilian States in the preparation of plans to improve their performance. Finally, MSH also concluded a knowledge, attitudes and practices (KAP) study to assess antimalarial access and use in Suriname gold mining areas, which will be discussed at an upcoming one-day workshop (see 2014 Events and Meetings).

In December 2013, U.S. Pharmacopeial Convention (**USP**) announced an extension of USAID's Promoting the Quality of Medicines (PQM) program to September 2019. Under PQM, USP currently works in Brazil, Colombia, Ecuador, Guatemala, Guyana, Peru and Suriname. USP's activities aim to institutionalize the three-level approach for medicine quality control monitoring (a framework that supports a more extensive, cost effective and rapid assessment of the pharmaceutical market in urban areas and peripheral locations), strengthen official medical control laboratories' capabilities to perform analysis of antimalarials, and strengthen medicine regulatory authorities.

The United States Agency for International Development (**USAID**) has prepared for an external evaluation of the Amazon Malaria Initiative to be carried out between January and March 2014. The questions the evaluation aims to answer include:

- Was the design and evolution of AMI effective in achieving its expected results while responding to country and regional needs?
- · Was AMI effective in implementing activities?
- · Did AMI contribute to have countries adequately implementing malaria prevention and control interventions?
- Did AMI contribute to the sustainability of the Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA) and of malaria prevention and control activities in the countries?
- Was AMI efficient?
- What should AMI's strategic direction be if extended beyond 2015?

3

Global Malaria News

Can chloroquine resistance be reversed?

In response to drug resistance, Purdue University researchers have designed chemical compounds that work against chloroquineresistant *P. falciparum* malaria parasites. The compounds, which are a set of dimeric quinine molecules also known as "quinine dimers,"



were found to be effective against chloroquine-resistant parasites. Analysis shows that quinine dimers are capable of killing the drug-resistant parasites because they bind to and block the chloroquine

resistance transporter PfCRT. Quinine dimers block the normal function of the resistance-conferring protein and resensitize the parasites to chloroquine. Read the study by Christine Hrycyna, Rowena Martin, Jean Chmielewski and colleagues published in <u>ACS Chemical Biology</u>

Fragile gains against malaria must be maintained

The World Health Organization (WHO)'s *World Malaria Report 2013* showed that malaria mortality rates fell by 45% globally and by 70% in the Americas from 2000-2012. Global incidence of malaria fell by 29% during the same period, and incidence in the Americas fell by 58%. Increased political commitment and expanded funding have helped to achieve these significant reductions, however the WHO stressed that gains against malaria remain fragile and must be maintained.

Executive summary and key points available in English, Spanish, and French at: <u>World Malaria Report 2013</u>

New diagnostic test may be able to detect malaria without a single drop of blood

Researchers at Rice University announced upcoming human trials of a new diagnostic test for malaria that uses non-invasive laser pulses instead of blood. This laser test detects acoustic signals when the vapor nanobubbles that form around "hemozoin," a unique component of all blood-stage malaria parasites, burst.

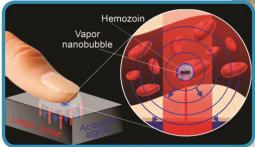


Image: Medgadget.com. E. Lukianova-Hleb/Rice University

The test takes advantage of the specific properties of hemozoin when pulsed with light. The potential to detect and screen malaria in seconds holds promise as a field technology that would be compact, easy-to-use, inexpensive, and safe. Read the article by Ekaterina Y. Lukianova-Hleb and colleagues entitled "Hemozoin-generated vapor nanobubbles for transdermal reagent- and needle-free detection of malaria" at:

Proceedings of the National Academy of Sciences of the United States of America



NOTE: Submissions for AMI quarterly bulletins may be sent to jdecarvalho@linksmedia.net. High resolution photographs, graphs, and web links are welcomel

Annex 2: Social Media Engagement with Increase in Numbers of Followers

Facebook



Amazon Malaria Initiative shared a link.

January 3 🔞

Interesting news story below. AMI is already ahead of the curve in terms of promoting proper drainage of rice farms in northern Perul Similar methods helped to eliminate malaria in the United States, according to research.

http://www.npr.org/blogs/health/2014/01/03/257627285/why-ending-malaria-may-be-more-about-backhoes-than-bed-nets



Why Ending Malaria May Be More About Backhoes Than Bed Nets

www.npr.org

The successful campaign to wipe out malaria in the U.S. offers lessons on how to stop it globally.

Like - Comment - Promote - Share



Rosane Lopes, Yegor Kuznetsov and 2 others like this.



Jaime Chang Suppression of transmission of malaria through source reduction: antianopheline measures applied in Israel, the United States, and Italy.

Kitron U, et al. Show all

Rev Infect Dis. 1989 May-Jun;11(3):391-406.

Abstract To provide a conceptual basis applicable to future antimalarial efforts, we sought to identify the sources of success in three notable campaigns that were consummated largely before DDT became available. A variety of measures directed against the aquatic stages of the anopheline vectors provided the main strategy for the antimalarial programs in Palestine/Israel, Italy, and the Tennessee River Valley of the United States. Source reduction—the modification or elimination of aquatic habitats to reduce mosquito breeding—was applied extensively and proved decisive. In all three regions, transmission of malaria was reduced to the point of extinction. Effective measures against anopheline larvae, in particular through source reduction, depend upon locally derived ecologic concepts that can be adapted to each vector species and applied continuously without limit of time. An integrated control program based on the long—term application of such measures can suppress transmission of malaria in edemic areas, as well as contain episodes of locally increased transmission of malaria.

January 3 at 10:25am - Like

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Twitter









AMI @AmazonMalaria · Mar 17

Pesquisadores da Nicarágua e do CDC usam marcadores moleculares p/monitorar a resistência aos medicamentos p/malária tiny.cc/zzbvcx!

Expand • Reply • Delete * Favorite • More



AMI @AmazonMalaria · Mar 17

Investigadores nicaragüenses y de CDC usan marcadores moleculares p/vigilar resistencia a medicamentos antimaláricos: tiny.cc/zzbvcx



AMI @AmazonMalaria · Mar 17

Nicaraguan and CDC researchers use molecular markers to monitor antimalarial drug resistance in study published Fri: tiny.cc/zzbvcx!



AMI @AmazonMalaria · Mar 3

It is predicted that more people will contract malaria in tropical highlands due to global warming. tinyurl.com/lq38xao

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AMI @AmazonMalaria · Mar 3

A expectativa é que mais pessoas vão pegar a malária nas terras altas tropicais por causa do aquecimento global. tinyurl.com/lq38xao

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AMI @AmazonMalaria · Mar 3

Se prevé que más gente va a contraer la malaria en las zonas altas tropicales debido al calentamiento global. tinyurl.com/lq38xao

LinkedIn



Annex 3: Updated AMI Web Site with Mobile-Compatible Design (Spanish)



La Iniciativa Amazónica contra la Malaria (AMI) es un programa regional que se implementa en once países de la cuenca del Amazonas y Centroamérica con el apoyo de la Agencia de los Estados Unidos para el Desarrollo Internacional. AMI fue lanzada en el 2001 con el objetivo principal de prevenir y controlar la malaria en la Cuenca Amazónica. Leer más.



Noticias y Eventos sobre Malaria

- OMS lanza nuevo informe sobre la resistencia a la artemisinina 20 de febrero de 2014. <u>Leer Más</u>.
- Taller para presentar una investigación sobre el acceso a los medicamentos antimaláricos y su uso en áreas de minería de oro 26 de febrero de 2014. Leer Más.
- XIII Reunión Anual de Evaluación AMI/RAVREDA y XXV Reunión del Comité Coordinador de AMI/RAVREDA 10 a 14 de marzo 2014. Leer Más.
- ▶ Informe Mundial sobre el Paludismo 2013 muestra avances significativos en la lucha contra la malaria, se insta al financiamiento sostenido 23 de diciembre de 2013. Leer Más.

Historias Exitosas

Avances en Colombia: Fortalecimiento de la prevención y control de la malaria en Chocó, Costa Pacífica colombiana, 2006 – 2009.

La experiencia en Chocó con

Noticias sobre AMI



Los países de las Américas han reducido las muertes por paludismo en un 70% desde el 2000, pero 145 millones de personas en la región continúan en peligro

Acceda a la hoja informativa de la OPAS/OMS sobre "El paludismo en las Américas" para un resumen de puntos clave del Informe Mundial sobre el Paludismo 2013.

Descargar o Ver el PDF

Vídeo: Celebrando Diez Años de Colaboración



Actividades de los Países



Brasil está en la tarea de estandarizar prácticas de prescripción y dispensación de antimaláricos en todo el país. Leer más.



Colombia está motivando a sus ciudadanos para que busquen tratamiento inmediato ante los síntomas de malaria a través de sus actividades de asistencia a la comunidad. Leer más.



Ecuador está abordando los temas relacionados con la adherencia de los pacientes a los medicamentos de los protocolos . Leer más.



Guyana se ha enfrentado a una creciente infestación de malaria por *P. falciparum*, viene implementando un importante programa de distribución de mosquiteros. Leer más.



Perú ha sido líder en implantar los tratamientos combinados con derivados de la artemisinina. <u>Leer</u> más.



Surinam ha disminuido la incidencia de malaria en un 93% comparado con el año 2000. Actualmente los esfuerzos hacia la eliminación están enfocados en las zonas del interior del país

Países Participantes

A través de AMI, la USAID colabora con una red de Programas Nacionales de Prevención y Control de Malaria en la cuenca del Amazonas y Centroamérica, analizando y enfrentando cuestiones de interés mutuo acerca de la prevención y control de la malaria (paludismo). Como ejemplo, AMI apoya la investigación y la vigilancia para evaluar cuáles medicamentos antimaláricos son eficaces en la región. De esa manera posibilita que los Ministerios de la Salud monitoreen sus estoques de medicamentos antimaláricos para poder intercambiar los mismos y evitar la falta o pérdida de medicamentos por su expiración. Todos los países de AMI han llevado a cabo políticas que prescriben el uso de terapias combinadas basadas en la artemisinina (TCAs) para el tratamiento de la malaria causada por el parásito P. falciparum y asimismo monitorean la eficacia de tales medicamentos. Estos esfuerzos regionales parecen haber dado resultados. Los países participantes de AMI tuvieron un descenso de 58% en el número de casos de malaria entre 2000 y 2011.



Historias desde los países

Fortalecimiento de la prevención y control de la malaria en Chocó, 2006 – 2009



Una microscopista toma una muestra de sangre para diagnosticar malaria en Chocó, Colombia, 2009.

Piura trabaja para mejorar el almacenamiento de medicamentos



Después de la asistencia técnica, las zonas de carga y descarga del almacén fueron protegidas con un techo del clima y del tiempo.

Colaboración entre laboratorios oficiales de control de medicamentos



Representantes de los OMCLs que asistieron, en septiembre de 2009, al taller subregional organizado por la PQM y la OPS en donde se discutieron enfoques sostenibles para fortalecer los OMCLs a nivel nacional y regional.

Mejores condiciones de almacenamiento de los

Annex 4: News Release: AMI/RAVREDA Meeting in Managua, Nicaragua



FOR IMMEDIATE RELEASE

March 27, 2014

Media Contact: Julie de Carvalho (Spanish,

Portuguese, English)

Links Media: 301-987-5495 ext.109 idecarvalho@linksmedia.net

Media Contact: Scott Barnes (English) Links Media: 301-987-5495 ext.101

sbarnes@linksmedia.net Website: usaidami.org

News Release

Malaria challenge debated at meeting of regional health initiative in Managua from March 11-13, 2014

USAID, the Pan American Health Organization, ministries of health, and scientists discussed ongoing regional strategies for malaria control.

MANAGUA, NICARAGUA — Despite being preventable and treatable, malaria represents a persistent threat in 21 malaria-endemic countries in the Americas. One approach to address it has been to consolidate regional collaborative efforts for malaria control through the Regional Network for the Surveillance of Antimalarial Drug Resistance (known as RAVREDA for its acronym in Spanish) and the Amazon Malaria Initiative (AMI), with support from the United States Agency for International Development (USAID) and the Pan American Health Organization (PAHO).

From March 11-13, 2014, at a meeting in Managua sponsored by the Ministry of Health of Nicaragua, PAHO and USAID, representatives of the national malaria control programs of the 11 countries participating in AMI and RAVREDA (Belize, Brazil, Colombia, Ecuador, Guyana, Guatemala, Honduras, Nicaragua, Panama, Peru, and Suriname) and four guest countries met to discuss progress in the implementation of evidence-based strategies to address increasingly localized malaria.

The regional approach has contributed to a considerable and sustained decrease in malaria transmission in all but one of the countries participating in AMI and RAVREDA. According to PAHO, the incidence of malaria has decreased by 60% from 2000 to 2013. Dr. Socorro Gross Galiano, PAHO's representative in Nicaragua, underscored that malaria control is related to economic development, since economic factors drive the population migration in Central America and the search for gold in the Amazon that contribute to disseminate malaria and make it more difficult to reach affected persons with diagnosis and treatment. She added that although some countries in the Americas have seen a reemergence of malaria along the past years, there is a big opportunity to eliminate malaria in the Americas, particularly in Central America and the Caribbean, where tourism is one of the most important sources of revenue, pointing out that "malaria and tourism do not go together."

USAID provides technical cooperation to Central American and Amazon countries based on a successful model for technical cooperation that began with eight Amazon basin countries in 2001. Additional information about USAID's Amazon Malaria Initiative is available at <u>usaidami.org</u>.

###



PARA DIVULGACIÓN INMEDIATA

27 marzo del 2014 Contacto para los medios: Julie de Carvalho (Español, Portugués, Inglés) Links Media: 301-987-5495 ext.109 idecarvalho@linksmedia.net

Sitio web: usaidami.org

Comunicado de Prensa

Desafío de la malaria debatido en reunión de iniciativa regional de la salud que sucedió en Managua de 11 a 13 de marzo del 2014

USAID, OPS, ministerios de salud y científicos discutieron la continuación de estrategias regionales para el control de la malaria.

MANAGUA, NICARAGUA — A pesar de ser prevenible y tratable, la malaria es una enfermedad que representa un desafío persistente en 21 países de las Américas. Un abordaje para enfrentarla ha sido consolidar los esfuerzos colaborativos regionales para controlar la malaria a través de la Iniciativa Amazónica contra la Malaria (AMI) y la Red Amazónica para la Vigilancia de la Resistencia contra las Drogas Antimaláricas (RAVREDA), con el apoyo de la Agencia de los Estados Unidos para el Desarrollo Internacional (USAID) y la Organización Panamericana de la Salud (OPS).

En Managua, del 11 al 13 de marzo del 2014, durante una reunión auspiciada por el Ministerio de salud de Nicaragua, OPS y USAID, los representantes de los 11 países participantes en AMI y RAVREDA (Belice, Brasil, Colombia, Ecuador, Guyana, Guatemala, Honduras, Nicaragua, Panamá, Perú, y Surinam) y cuatro países invitados se reunieron para discutir los avances en la puesta en práctica de estrategias basadas en evidencia para enfrentar una malaria cada vez más focalizada.

La aproximación regional ha contribuido a lograr una considerable y sostenida disminución en la transmisión de malaria en todos menos uno de los once países participantes en AMI y RAVREDA, que según la OPS ha sido de 60% entre los años 2000 y 2013. La Representante de la OPS en Nicaragua, la Dra. Socorro Gross Galiano, subrayó la relación entre la malaria y el desarrollo económico, dado que son factores económicos los que estimulan en Centroamérica y en la Región Amazónica la migración y la minería ilegal de oro que hacen más difícil proporcionar diagnóstico y tratamiento a las personas afectadas. La Dra. Gross añadió que aunque algunos países en las Américas han presentado una reemergencia de la malaria durante los últimos años, se tiene una gran oportunidad para eliminar la malaria en las Américas, particularmente en Centroamérica y el Caribe, donde el turismo es una de las fuentes de ingreso más importante, señalando que "la malaria y el turismo no van bien juntos".

USAID colabora técnicamente con los países de Centroamérica y la Región Amazónica a través de AMI, siguiendo un modelo exitoso de cooperación que se inició el año 2001 con ocho países amazónicos. Información adicional sobre AMI está disponible en www.usaidami.org.

###

Annex 5: Email alert for promotion of AMI and its materials



Latest News - Noticias - Novidades

Thank you to all those who traveled to Nicaragua from March 11-19, 2014 to participate in the XIII Annual Scalustion Meeting of AMI/SAVESDA.

Gracias a todos que viajaron a Nicaragua de 11 al 19 de marzo 2014 para participar en la XIII Reunión Anual de Evaluación de AMI / RAVESDA.

Obrigado a todos que viajaram à Nicarágua entre 11 e 19 de março 2014 para participar da XIII Reunião Anual de Avaliação de AMI ; RAVESDA.



AMI's website has been relaunched and it is now compatible with mobile desired.

El <u>attio web</u> de AMI fue relanzado y ahora es compatible con los dispositivos móviles:

O <u>site</u> da AMI foi relançado e agora é compatível com dispositivos móveis:



New publications are now available on the AMI websits.

Nuevas publicaciones ya están disponibles en el <u>sitio</u> <u>web</u> de AMI.

Novez publicações já estão disponíveis no <u>site</u> de AMI.



The Pasteur Institute of French Gulana is accepting abstracts for the Amazonian Conference on Emerging Infectious Diseases, September 26-25, 2014.

El Instituto Pasteur de Guayana Prancesa está aceptando resúmenes para la Conferencia Amazónica sobre Enfermedades infecciosas Emergentes, 26 a 25 septiembre, 2014.

O Instituto Pasteur da Gullana Francesa está scelltando resumos para a Conferência Amazônica sobre Doenças Infecciosas Emergentes, 26 a 25 de Setembro.